DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-023576
Date Inspected: 08-May-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1900
OSM Departure Time: 700
Location: Shanghai, China

CWI Name:	See Below		**CWI Present:**	☑ Yes	☐ No
Inspected CWI report:	☐ Yes	☑ No ☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No ☐ N/A
Electrode to specification:	☑ Yes	☐ No ☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No ☐ N/A
Qualified Welders:	☑ Yes	☐ No ☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No ☐ N/A
Approved Drawings:	☑ Yes	☐ No ☐ N/A	**Approved WPS:**	☑ Yes	☐ No ☐ N/A
			Delayed / Cancelled:	☐ Yes	☑ No ☐ N/A

Bridge No: 34-0006
Component: OBG

Summary of Items Observed:

CWI Inspector: Mr. Li Yang Hua

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Trial Assembly
This QA Inspector observed ZPMC welder Ms. Ma Ying, stencil 045270 used submerged arc welding procedure specification WPS-B-T-2221-B-L2C-S-2 to make OBG segment 13AW to 13BW top deck butt weld OBW13-001. This QA Inspector measured a welding current of approximately 670 amperes (amps), 29.0 volts and Ms. Ma Ying appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electric heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Rucheng, stencil 066881 used shielded metal arc welding used shielded metal arc welding process to make temporary alignment / jacking plate welds between OBG segment 13CW and 14W bottom plates. This QA Inspector observed a welding current of approximately 160 amps, the base materials were heated with a torch and Mr. Wang Rucheng appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhou Bin, stencil 067947 used shielded metal arc welding procedure WPS-B-T-4213-B-U2-1 to make OBG segment 13AW weld DP3116-060. This QA Inspector observed Mr. Zhou Bin used E9018 welding electrodes to make this weld. This QA Inspector observed a welding current of approximately 135 amps, the base materials were preheated with a torch and Mr. Zhou Bin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Liu Ya, stencil 067520 used shielded metal arc welding procedure WPS-B-P-2231-U2-FCM-1 to make OBG segment 13AW to 13BW butt weld OBW13-001. This QA Inspector observed a welding current of approximately 210 amps, the base material had been preheated with electric heaters and Mr. Liu Ya appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Huang Hongpei, stencil 037705 used flux cored welding procedure WPS-B-T-2133-ESAB to make OBG segment 14W weld SEG3020AL-303. This QA Inspector observed a welding current of approximately 270 amps, 26.0 volts, the base material had been preheated with a torch and Mr. Huang Hongpei appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Cunnang, stencil 070101 used flux cored welding procedure specification WPS-B-T-2233-ESAB to make OBG segment 14W weld SEG3020C-081 and later in the shift Mr. Wu Cunnang . This QA Inspector observed a welding current of approximately 240 amps, 26.0 volts and Mr. Wu Cunnang used flux cored welding procedure specification WPS-B-T-2232-ESAB to make OBG segment 14W weld SEG3020C-057. Mr. Wu Cunnang appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhao Aifei stencil 067942 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4B-FCM-1 to make OBG segment 13BW weld CA3015A-001 and later in the shift Mr. Zhao Aifei used welding procedure specification WPS-B-P-2213-TC-U4B-FCM-1 to make OBG segment 13AW to 13BW butt weld SEG3013A-001 . This QA Inspector observed a welding current of approximately 165 amps, the base material had been preheated with electric heaters and Mr. Zhao Aifei appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Guijun, stencil 067275 used flux cored welding procedure WPS-B-T-2231T-ESAB-1 to make OBG Segment 13AE to 13BE bottom plate butt weld OBW13D-003. This QA Inspector observed a welding current of approximately 300 amps, 26.0 volts, the base material had been preheated with electric heaters and Mr. Wang Guijun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

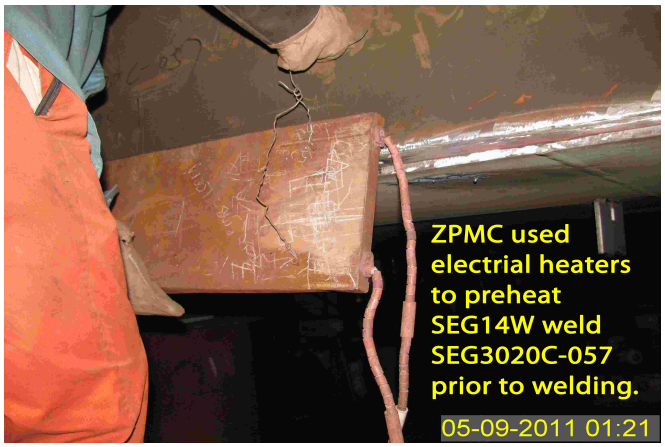
This QA Inspector observed ZPMC welder Mr. Li Shoufu, stencil 066674 used shielded metal arc welding procedure WPS-B-P-2211-TC-U4B-FCM-1 to make OBG segment 13AW weld SEG3013A-018-022. This QA Inspector observed a welding current of approximately 250 amps and Mr. Li Shoufu appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

This QA Inspector observed ZPMC welder Mr. Jiang Junlin, stencil 067876 used flux cored welding procedure WPS-B-T-2231T-ESAB-1 to make OBG Segment 13AE welds SEG3013B-145 and 146. This QA Inspector observed a welding current of approximately 270 amps, 26.5 volts, the base material had been preheated with electric heaters and Mr. Jiang Junlin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Liu Ya, stencil 067520 used shielded metal arc welding procedure WPS-345-SMAW-3F(3G)-FCM-Repair-1 to make weld SEG3014H-177. ZPMC QC CWI Mr. Li Yang Hua informed this QA Inspector that he was not able to locate a weld repair document at this time. This QA Inspector observed a welding current of approximately 170 amps, the base material had been preheated with a torch and Mr. Liu Ya appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey +8615000026784, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer